

### **Amendments to the Claims:**

1. (currently amended) A system for publishing images over a communication network, comprising:
  - a study storage device for storing a plurality of studies, each study comprising one or more images;
  - a publication server coupled to said communications network, said publication server adapted to enter an automatic mode wherein one or more studies from among said plurality of studies are automatically sent to a client computer coupled to said communications network as they become available on said study storage device;
  - said client computer adapted to receive said one or more studies and store them in a local storage; and
  - ~~said client computer comprising means for a user to enter an interactive mode wherein said automatic mode is interrupted and an interactive viewing session is initiated for immediately viewing a selected study before transmission of said selected study is complete using any needed data already received and stored in said local storage, and if said needed data is not available on said local storage, then pulling needed data from said publication server using progressive image streaming techniques.~~
  - said client computer comprising means for a user to enter an interactive mode whereby said automatic mode is interrupted and an interactive viewing session is initiated for immediately viewing one or more regions of interest (ROIs) of a selected study, regardless of the portion if any of the selected study already transmitted, first using any image data already locally cached, and second sending interactive ROI requests for missing selected image data to said publication server whereby required study data not in said local cache is received from said publication server using progressive image streaming techniques.

2. (previously amended) The system according to claim 1, wherein said publication server is adapted to send said one or more studies to said client computer in accordance with a set of publication rules.
3. (currently amended) The system according to claim 2, wherein said publication rules ~~comprises~~ comprise instructions for determining, for each new study, which clients are to receive it.
4. (previously amended) The system according to claim 1, wherein said client computer comprises means for using only required data stored in said local storage if said user initiates a viewing session of said selected study after all said required data for said selected study is completely received.
5. (previously amended) The system according to claim 1, wherein said client computer comprises means for using progressive image streaming techniques to retrieve data from said publication server for said selected study if said user initiates a viewing session of said selected study before any data corresponding thereto has been received by said client computer.
6. (original) The system according to claim 1, wherein said client computer comprises data pull means adapted to periodically poll said publication server for new studies that have not yet been retrieved.
7. (original) The system according to claim 1, wherein said client computer comprises data push means adapted to configure said publication server to automatically check for and send new studies that have not yet been transmitted to said client.
8. (previously amended) The system according to claim 1, wherein said publication server is adapted to send said one or more studies to said client using progressive image streaming techniques whereby information is sent in encoded layers wherein each successive layer has higher accuracy and quality than the layer previous thereto.

9. (original) The system according to claim 1, wherein said client computer comprises means whereby if said user initiates a viewing session of said selected study after data is completely received by said client, then said client utilizes said data to provide instant rendering of images within said selected study.
10. (original) The system according to claim 1, further comprising means for permitting said user to freely switch back and forth between automatic mode and interactive mode without the need to switch protocols.
11. (original) The system according to claim 1, wherein said progressive image streaming techniques are performed utilizing JPEG2000 standard.
12. (currently amended) An image publication system for use on a client computer coupled to a communications network, comprising:
  - first means for receiving a first command from a user to enter an automatic mode whereby new studies are sent automatically from said publication server to said client computer over said communications network as they become available;
  - local storage device for storing said studies upon receipt;
  - second means for receiving said studies and for storing them in said local storage;
  - ~~third means for receiving a second command from said user to interrupt said automatic mode and to immediately view a selected study before data is completely received for said selected study and in response thereto, entering an interactive mode whereby an immediate attempt is made to obtain data required for viewing said selected study from said local storage, and if unsuccessful, from said publication server using progressive image streaming techniques via one or more requests transmitted from said client computer to said publication server; and~~
  - third means for receiving a second command from said user to interrupt said automatic mode and to immediately enter an interactive mode regardless of the portion of said selected already received, whereby one or more regions of interest (ROIs) of a selected study is viewed using any image data already locally cached,

wherein interactive ROI requests for image data not present in said local cache are sent to said publication server whereby required image data is received from said publication server using progressive image streaming techniques; and

fourth means for receiving and decoding data received from said publication server in response to said one or more requests.

13. (previously amended) The system according to claim 12, wherein said publication server is adapted to send said studies to said client computer in accordance with a set of publication rules.
14. (previously amended) The system according to claim 12, wherein said publication server is adapted to send said studies while in said first mode using progressive image streaming techniques whereby information is sent in encoded layers wherein each successive layer has higher accuracy and quality than the layer previous thereto.
15. (original) The system according to claim 12, wherein said client computer comprises means for using only data stored in said local storage if a user initiates a viewing session of said selected study after all data for said selected study is completely received.
16. (original) The system according to claim 12, wherein said client computer comprises means for using progressive image streaming techniques to retrieve data from said publication server for said selected study if a user initiates a viewing session of said selected study before any data corresponding thereto has been received by said client computer.
17. (original) The system according to claim 12, wherein said client computer comprises data pull means adapted to periodically poll said publication server for new studies that have not yet been retrieved.
18. (original) The system according to claim 12, wherein said client computer comprises data push means adapted to configure said publication server to automatically check for and send new studies that have not yet been transmitted to said client.

19. (previously amended) The system according to claim 12, wherein said publication server is adapted to send said one or more studies to said client using progressive image streaming techniques whereby information is sent in encoded layers wherein each successive layer has higher accuracy and quality than the layer previous thereto.
20. (original) The system according to claim 12, wherein said client computer comprises means whereby if said user initiates a viewing session of said selected study after data is completely received by said client, then said client utilizes said data to provide instant rendering of images within said selected study.
21. (original) The system according to claim 12, further comprising means for permitting said user to freely switch back and forth between automatic mode and interactive mode without the need to switch protocols.
22. (original) The system according to claim 12, wherein said progressive image streaming techniques are performed utilizing JPEG2000 standard.
23. (currently amended) An image publication system for use on a publication server computer coupled to a communications network, comprising:
- first means for receiving instructions from a client computer coupled to said communications network, said first means for configuring said publication server computer in an automatic publishing mode whereby new studies are automatically sent to said client computer as said new studies become available;
  - ~~second means for interrupting said automatic publishing mode and immediately switching to an interactive mode in response to a command received from a user before transmission of data for a study selected by said user is complete, said command comprising a request for specific layers of accuracy for regions of interest of said selected study; and~~
  - second means for interrupting said automatic publishing mode and immediately switching to an interactive mode in response to one or more commands received from a user regardless of the portion of a selected already transmitted

to said client computer, said commands comprising interactive regions of interest (ROI) requests for a selected image within said selected study; and  
third means for sending said specific layers of accuracy for regions of interest of said selected study to said client computer in response to said requests.

24. (previously amended) The system according to claim 23, wherein said publication server computer is adapted to send said one or more studies to said client computer using progressive image streaming techniques whereby information is sent in encoded layers wherein each successive layer has higher accuracy and quality than the layer previous thereto.
25. (original) The system according to claim 24, wherein said progressive image streaming techniques are performed utilizing JPEG2000 standard.
26. (currently amended) The system according to claim 23, wherein said publication server computer is adapted to send one or more of said new studies to said client computer in accordance with a set of publication rules.
27. (currently amended) A computer program product for use in a client computer coupled to a communication network, said computer program product comprising:  
a computer readable medium having computer readable program code means embodied in said medium for receiving and displaying studies from a publication server coupled to said communications network, said computer program product comprising:  
computer readable program code means for receiving a first command from a user to enter an automatic mode whereby new studies are sent automatically from said publication server to said client computer over said communications network as they become available;  
computer readable program code means for receiving said studies and for storing them in a local storage device coupled to said client computer;  
~~computer readable program code means for receiving a second command from said user to interrupt said automatic mode and to immediately view a selected study~~

~~before its data is completely received and in response thereto, entering an interactive mode whereby data required for viewing said selected study is first obtained from said local storage, and if unsuccessful, from said publication server using progressive image streaming techniques via one or more requests transmitted from said client computer to said publication server; and~~

computer readable program code means for receiving a second command from said user to interrupt said automatic mode and to immediately enter an interactive mode regardless of the portion of said selected already received, whereby one or more regions of interest (ROIs) of a selected study is viewed using any image data already locally cached, wherein interactive ROI requests for image data not present in said local cache are sent to said publication server whereby required image data is received from said publication server using progressive image streaming techniques; and

computer readable program code means for receiving and decoding data received from said publication server in response to said one or more requests.

28. (currently amended) A computer program product for use in a publication server computer coupled to a communication network, said computer program product comprising:

a computer readable medium having computer readable program code means embodied in said medium for publishing studies to a client computer coupled to said communications network, said computer program product comprising:

computer readable program code means for receiving instructions from said client computer and for configuring said publication server computer in an automatic publishing mode whereby new studies are automatically sent to said client computer as said studies become available on a study database coupled to said publication server computer;

computer readable program code means for interrupting said automatic publishing mode and immediately switching to an interactive mode in response to a command received from a user before transmission of data for a study selected

by said user is complete, said command comprising a request for specific layers of accuracy for regions of interest of said selected study; and

computer readable program code means for interrupting said automatic publishing mode and immediately switching to an interactive mode in response to a command received from a user regardless of the portion of a selected already transmitted to said client computer, said command comprising a request for one or more regions of interest (ROIs) of a selected image within said selected study; and

computer readable program code means for sending said specific layers of accuracy for regions of interest of said selected study to said client computer in response to said requests.